

CLAIMS

1-14. (canceled)

15. (new) An integrated structure having a piezoelectronic device, the integrated structure comprising:
a substrate having an cavity;
a piezoelectric layer integral to the piezoelectronic device and supported on the substrate, such that the piezoelectric layer spans the cavity in the substrate to form a suspended membrane portion of the piezoelectric layer; and
one or more conducting elements integral to the piezoelectronic device and mounted on the suspended membrane portion of the piezoelectric layer.

16. (new) The device of claim 15, wherein the piezoelectronic device comprises a thin film resonator.

17. (new) The device of claim 15, wherein the piezoelectronic device comprises a T-Cell building block.

18. (new) The device of claim 15, wherein:
the suspended membrane portion of the piezoelectric layer has an inner side facing towards the cavity in the substrate and an outer side facing away from the cavity in the substrate;
at least one conducting element is mounted on the inner side of the suspended membrane portion of the piezoelectric layer; and
at least one conducting element is mounted on the outer side of the suspended membrane portion of the piezoelectric layer.

19. (new) The device of claim 15, further comprising one or more conducting leads running along the suspended membrane portion of the piezoelectric layer from one or more corresponding conducting elements towards an edge of the piezoelectric layer, wherein:
the integrated structure is mounted in an edge-on fashion within a recess of a package having one or more bonding leads mated to the one or more conducting leads of the piezoelectronic device.

20. (new) The device of claim 19, wherein each bonding lead of the package is mated to the corresponding conducting lead of the piezoelectronic device by a reflowed solder bump.

1 21. (new) An integrated structure having an electronic device, the integrated structure
2 comprising:
3 a substrate having an cavity;
4 a layer supported on the substrate, such that the layer spans the cavity in the substrate to form a
5 suspended membrane portion of the layer;
6 one or more elements integral to the electronic device and mounted on the suspended membrane
7 portion of the layer; and
8 one or more conducting leads running along the suspended membrane portion of the layer from
9 one or more corresponding elements of the electronic device towards an edge of the layer, wherein:
10 the integrated structure is mounted in an edge-on fashion within a recess of a package
11 having one or more bonding leads mated to the one or more conducting leads of the electronic device.

1 22. (new) The device of claim 21, wherein the layer is an etch-resistant layer that is not
2 integral to the electronic device.

1 23. (new) The device of claim 21, wherein the layer is a piezoelectric layer that is integral to
2 the electronic device.

1 24. (new) The device of claim 21, wherein:
2 the suspended membrane portion of the layer has an inner side facing towards the cavity in the
3 substrate and an outer side facing away from the cavity in the substrate;
4 at least one conducting element of the electronic device is mounted on the inner side of the
5 suspended membrane portion of the layer; and
6 at least one conducting element of the electronic device is mounted on the outer side of the
7 suspended membrane portion of the layer.

1 25. (new) The device of claim 21, wherein each bonding lead of the package is mated to the
2 corresponding conducting lead of the electronic device by a reflowed solder bump.